Groundwater Management at Borrego Springs

There are two additional sources of underground water flow that should be considered to help solve the issues with the decreasing underground water basin under Borrego Springs.

- Clark Well, close to Clark Dry Lake between Coyote Mountain and the Santa Rosa Mountains, is one source. However, there might be concern over water quality. Also, going further up Rockhouse Canyon for cleaner water is limited by the Santa Rosa and San Jacinto Mountains National Monument.
- 2. San Felipe Wash is a much larger source of water which follows highway 78 to Texas Dip on the Borrego Springs Road and ends less than a half mile from highway 78. It also has drinkable water upstream at Yaqui Well and Tamarisk Grove campgrounds. Additional underground water flow is added from the south side of highway 78 from Pinyon Mountains. All of these sources follow the Felipe Wash to Ocotillo Wells where additional underground flow is added from Fish Creek Mountains to the South. The total groundwater flows south of the Salton Sea toward Brawley and the Mexican border where farming is supported from the Colorado River.
 - 2.1.It seems like the Narrows Earth Trail point along highway 78 is the optimum spot to tap into this flow for Borrego Springs and will require hydrologists checking into the quality and quantity of water at this point. If tests are okay, pipe can go around the east end of Yaqui Ridge and run downhill to Rams Hill steel tanks with enough water for Rams Hill and Casa del Zorro.

I recommend that 2.1 be tested A.S.A.P.

Robert Kleist

Retired Stanford MSEE

Solar/Electric Management at Borrego Springs

Solar Energy Management (Mgt.) can collaborate with Water Mgt. for storing both water and electric energy for local distribution that needs to be optimized for geographical locations.

- 1. An example of solar energy generation has been completed at the new library. Here the covering the of the shaded parking has solar panels much like one would find on a rooftop. This type of shaded parking could be extended to schools, businesses, and hotels/motels.
- 2. Solar Energy Mgt. could collaborate with Groundwater Mgt. to pump water from additional underground water flows to elevations that would store both water and electric energy.
- 3. Underground utilities for both water and electrical energy have regional populated areas. Connections between these regions should be steel poles with safe conduction in severe weather.
- 4. The regional availability of water and electric energy at the lowest cost and safety varies geographically. Solar energy is optimal for Borrego Springs with local management and collaboration with Hydrologists.

Robert A. Kleist 5/8/2019